

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently amended) An improvement in a process for the polymerization or copolymerization in the gas phase of olefin(s) by bringing the olefin(s) into contact, under polymerization or copolymerization conditions in a reactor in which the polymer or the copolymer is maintained in a fluidized bed ~~and/or agitated with mechanical stirring,~~ with a catalyst system, the improvement comprising, prior to the introduction of the catalyst system in the reactor, subjecting the reactor to a cleaning treatment that includes the steps of introducing into the reactor an alkane having from 4 to 8 carbon atoms, circulating said alkane across the reactor under pressure and elevated temperature, and then depressurizing and purging the reactor of the alkane, wherein the quantity of alkane used for the cleaning treatment is such that the alkane partial pressure is between 25 and 95% of the saturated vapor pressure of the alkane under the temperature and pressure treatment conditions.
2. (Previously presented) The process according to claim 1, wherein the reactor contains a charge powder and wherein said cleaning treatment is performed before, after or during the introduction of the charge powder into the reactor.
3. (Previously presented) The process according to claim 2, wherein said cleaning treatment is performed before introduction of the charge powder into the reactor.
4. (Previously presented) The process according to claim 1, wherein the introduction of the alkane is performed in the presence of an inert gas.

5. (Previously presented) The process according to claim 1, wherein the cleaning treatment is performed under airtight conditions, in the absence of a reacting gas.
6. (Previously presented) The process according to claim 1, wherein the cleaning treatment includes circulating the alkane across the reactor under a pressure above atmospheric pressure.
7. (Previously presented) The process according to claim 1, wherein the cleaning treatment includes circulating the alkane across the reactor at a temperature of at least 40°C.
8. (Previously presented) The process according claim 1, wherein the alkane is chosen amongst one or more of butane, pentane, hexane, heptane or octane.
9. (Previously presented) The process according to claim 8, wherein the alkane is pentane.
10. (Cancelled).
11. (Previously presented) The process according to claim 1, wherein the quantity of alkane used for the cleaning treatment is such that the alkane partial pressure is between 45 and 75% of the saturated vapor pressure of the alkane under the treatment conditions.
12. (Previously presented) The process according to claim 1, wherein the treatment lasts at least five minutes.
13. (Previously submitted) The process of claim 4, wherein the inert gas is nitrogen.

14. (Previously submitted) The process of claim 6, wherein the pressure is between 5 and 30 bars.
15. (Previously submitted) The process of claim 7, wherein the temperature is between 50 and 120°C.
16. (Previously submitted) The process of claim 12, wherein the treatment lasts for over 15 minutes.